

## PATENT COOPERATION TREATY

PCT

3 MAR 2005

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or Agent's file reference H 05735 PCT	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP 03/10213	International filing date (day/month/year) 13.09.2003	Priority date (day/month/year) 23.09.2002
International Patent Classification (IPC) or national classification and IPC A23G3/00		
Applicant SUS TECH GMBH & CO. KG et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 6 sheets including this title page.

- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Instruction 607 of Administrative Instructions of the PCT).

These annexes consist of a total of 5 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement according to Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 03.03.2004	Date of completion of this report 27.12.2004
Name and mailing address of the IPEA  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0, Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer:  Gaiser, M  Telephone No. +49 89 2399-2383 

**I. Basis of the report**

1. This report has been drawn up on the basis of the following elements (*the replacement sheets received by the receiving office in response to an invitation according to Article 14 are considered in the present report as "originally filed" and are not annexed to the report as they contain no amendments (Rules 70.16 and 70.17).):*

**Description, pages:**

1-38 as originally filed

**Claims, No.:**

37 as originally filed

1-36 received on 22.10.2004 with the letter of 15.10.2004

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been written disregarding (some of) the amendments, which were considered as going beyond the description of the invention, as filed, as is indicated below (Rule 70.2(c)):

*(All replacement sheets comprising amendments of this nature should be indicated in point 1 and attached to this report).*

6. Additional observations, if necessary:

**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 36

because:

☒ the said international application, or the said claims Nos. 36 relate to the following subject matter which does not require an international preliminary examination (*specify*):

**see accompanying sheet**

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for said claims Nos.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes:	Claims	1-35
	No:	Claims	
Inventive Step (IS)	Yes:	Claims	1-35
	No:	Claims	
Industrial Applicability (IA)	Yes:	Claims	1-35
	No:	Claims	

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2. Citations and explanations

**see accompanying sheet**

**Re point I**

**Basis of the decision**

The amended claims 1 and 25 contain the features of the originally filed claims 1, 3 and 26.

**Re point III**

**Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The subject matter of claim 36 relates to a method for treating living creatures. Claim 36 therefore relates to a subject matter which, in the opinion of this authority, comes under Rule 67.1 (iv) PCT. Therefore, no opinion is established as to the industrial applicability of the subject matter of these claims (Article 34(4) a) (i) PCT).
2. The description has not been adapted to the amended claims. The statement made under point V therefore apply subject to a suitable modified description, under Article 6 PCT.

**Re point V**

**Reasoned statement with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement**

1. Coatings applied to chewing gum which comprise slightly soluble calcium salts are known from the prior art and can be deduced, for example, from D1=US-A-5 980 955, D2=US 2001/021403 A1 or D3=US 2001/021373 A1.  
While D1 does not specify preferred particle size, the particle sizes which can be deduced from D2 or D3 are a multiple of those specified in claim 1 and 25.  
The particle sizes specified in claims 1 and 25 make possible more efficient mineralization of the tooth enamel.  
Since none of the disclosed documents describing the prior art describes coatings of chewing gum or the like which comprise nanoparticles of that type, use thereof is also not obvious to those skilled in the art.
2. Claims 2-24 and 26-35 relate to preferred embodiments of the chewing gum of claim 1 or of the method for its production according to claim 25.